

FIG. 1A

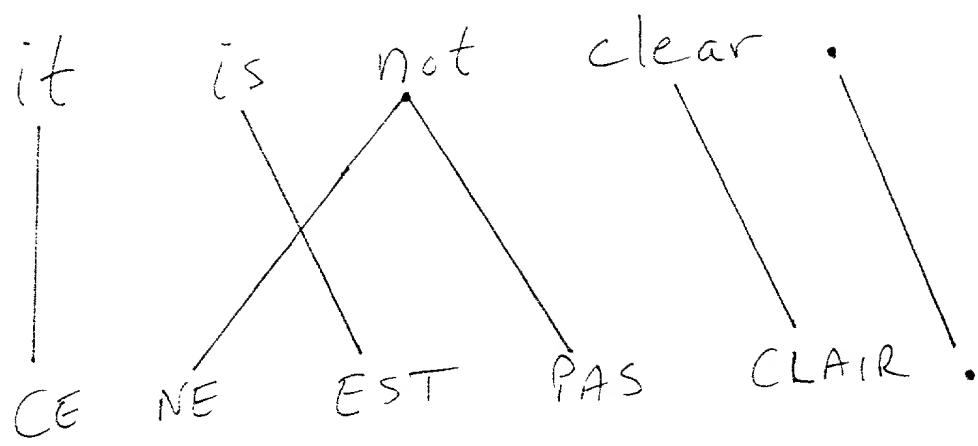


FIG. 1B

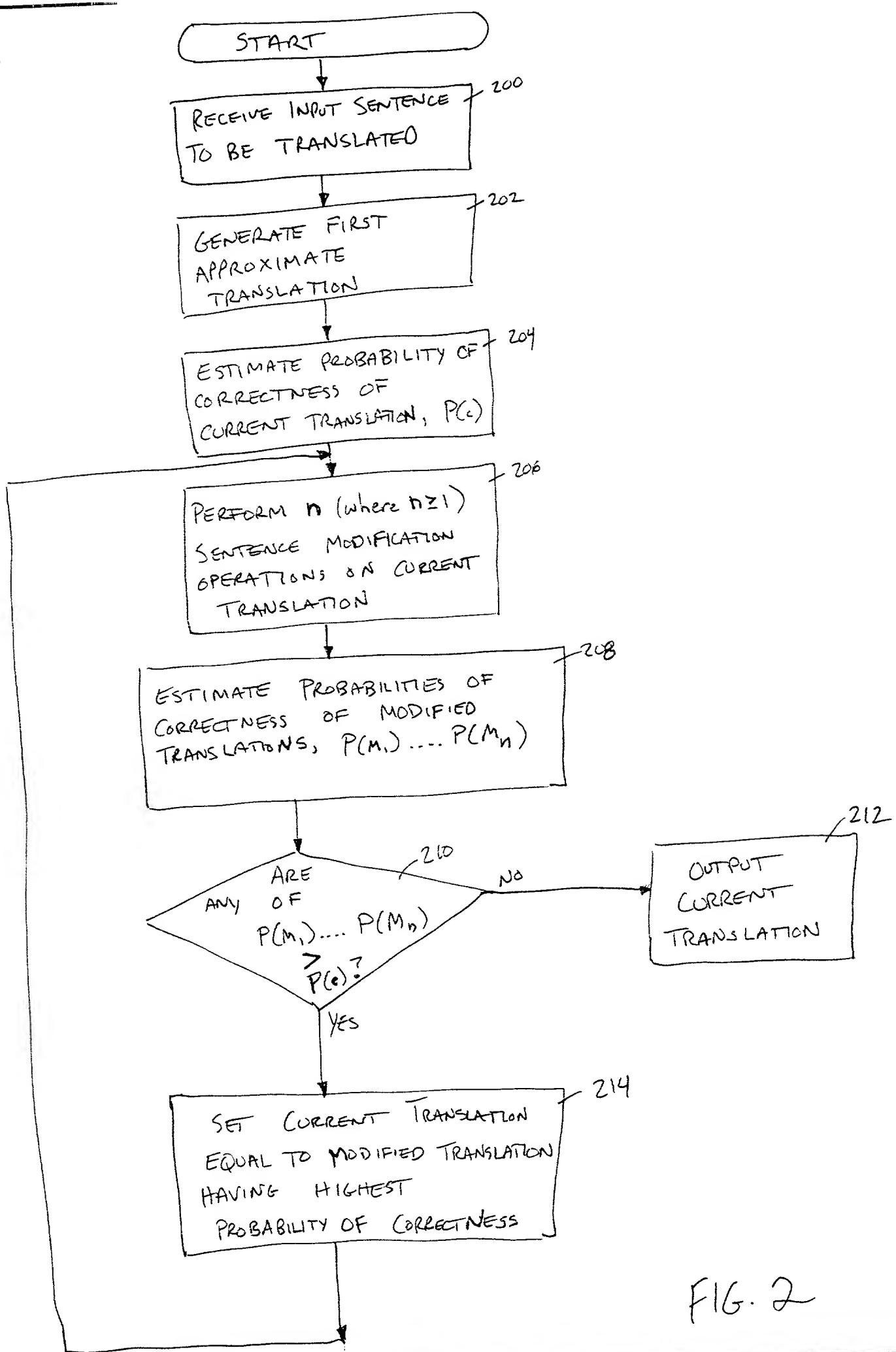


FIG. 2

Action

NULL well heard , it talking a beautiful victory .

bien entendu , il parle de une belle victoire .

translateTwoWords(5,talks,7,great)

NULL well heard , it talks a great victory .

bien entendu , il parle de une belle victoire .

translateTwoWords(2,understood,0,about)

NULL well understood , it talks about a great victory .

bien entendu , il parle de une belle victoire .

translateOneWord(4,he)

NULL well understood , he talks about a great victory .

bien entendu , il parle de une belle victoire .

translateTwoWords(1,quite,2,naturally)

NULL quite naturally , he talks about a great victory .

bien entendu , il parle de une belle victoire .

FIG. 3

ce ne est pas juste .
that not is not fair .
Aprob = 1.13162e-22

ce ne est pas juste .
that not is not fair .
Aprob = 2.98457e-14 LMprob = 3.79156e-09

ITERATION 1
ITERATION 2

Change not -> ne to is -> ne

ce ne est pas juste .
that is not fair .
Aprob = 9.95934e-19 LMprob = 8.65626e-10 TMprob = 1.15054e-09

ITERATION 3
ITERATION 4

Increase fertility. Change is -> est to is -> est

ce ne est pas juste .
that is not fair .
Aprob = 2.65104e-16 LMprob = 5.05036e-06 TMprob = 5.24921e-11

Change that -> ce to it -> ce

ce ne est pas juste .
it is not fair .
Aprob = 3.82599e-16 LMprob = 6.63863e-06 TMprob = 5.76322e-11

F16, 4

sent length	decoder type	time (sec/sent)	translation errors (semantic and/or syntactic)
6	stack	13.72	42
6	greedy	1.58	46
6	greedy*	0.07	46
8	stack	45.45	59
8	greedy	2.75	68
8	greedy*	0.15	69
10	stack	105.15	57
10	greedy	3.83	63
10	greedy*	0.20	68
15	stack	>2000	74
15	greedy	12.06	75
15	greedy*	1.11	75
15	greedy ¹	0.63	76
20	greedy	49.23	86
20	greedy*	11.34	93
20	greedy ¹	0.94	93

FIG. 5

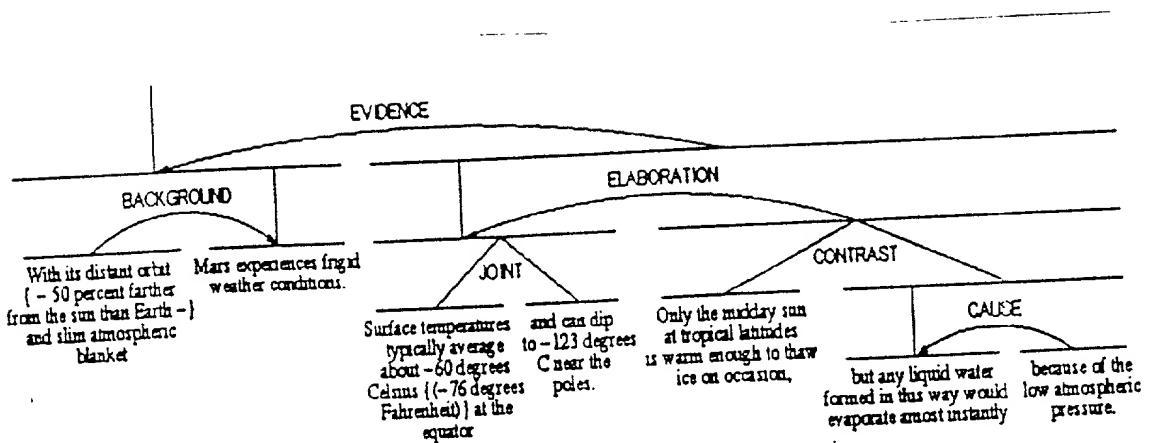


FIG. 6

[厚生省が昨年公表した¹]
[人口の将来推計では、²]
[将来、一・四九九人を最低に、³]
[その後は上昇に転ずると⁴]
[推計していたが、⁵]
[早くも予想がはずれる⁶]
[見通しとなった。⁷]

FIG. 7

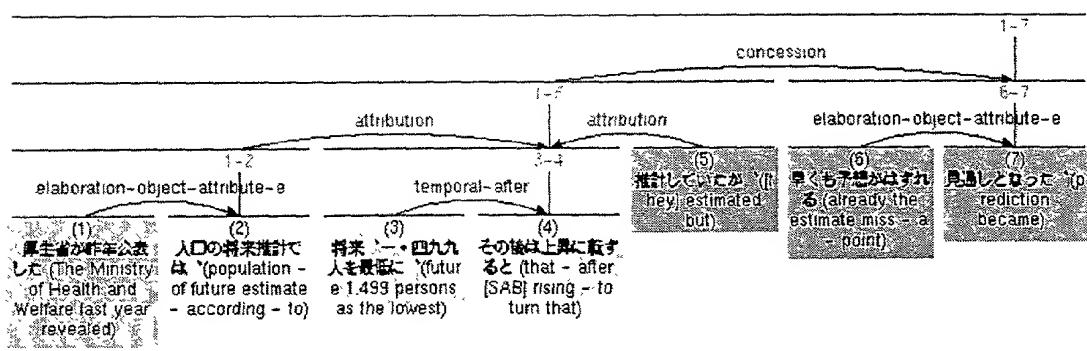


FIG. 8

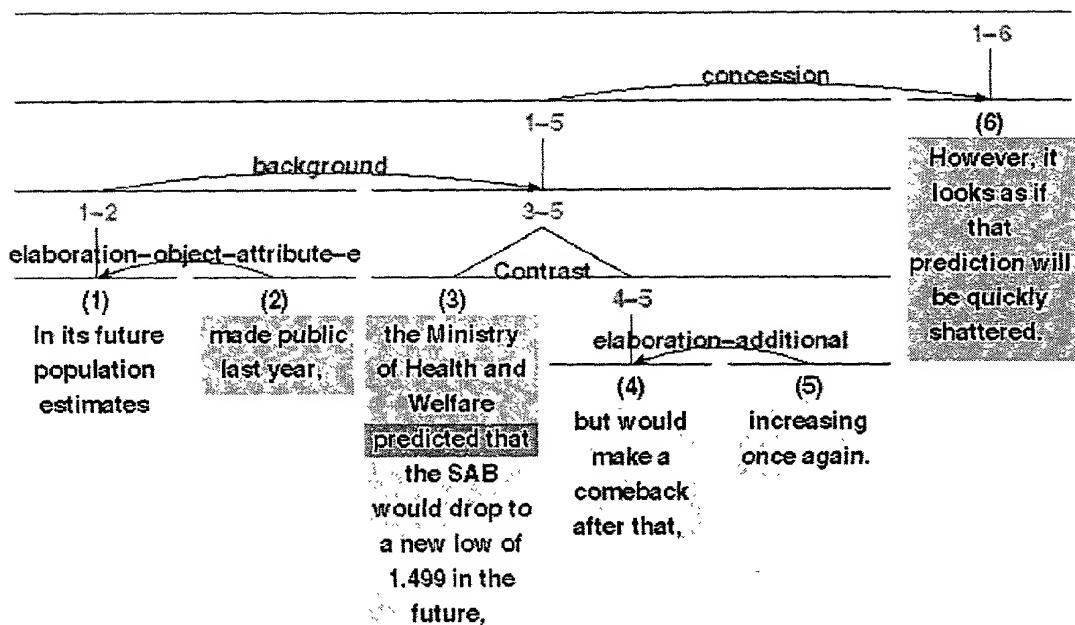


FIG. 9

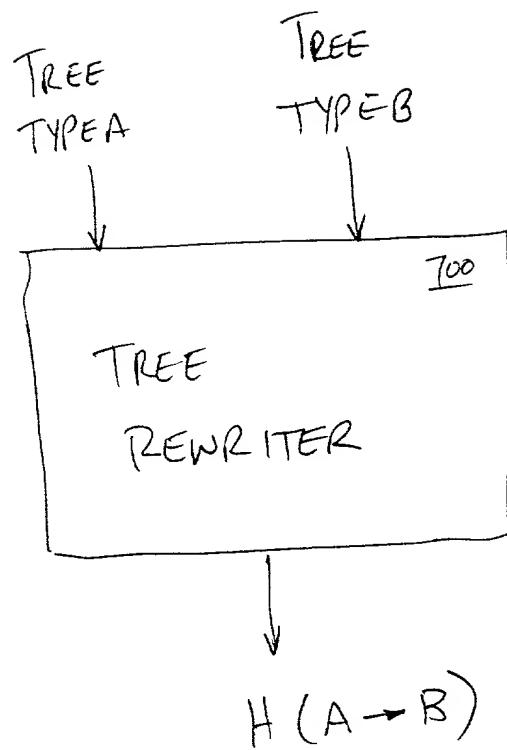


FIG. 10

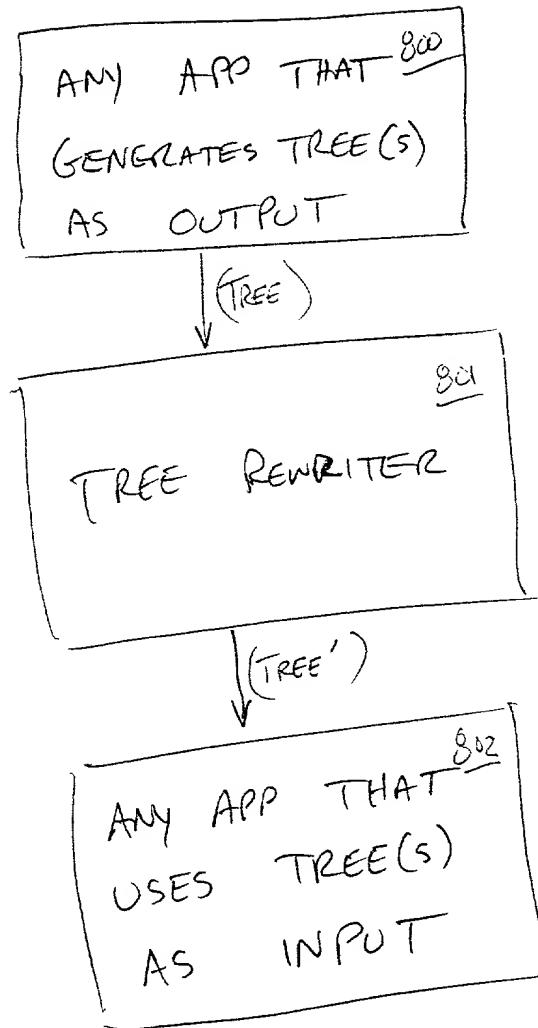


FIG. 11

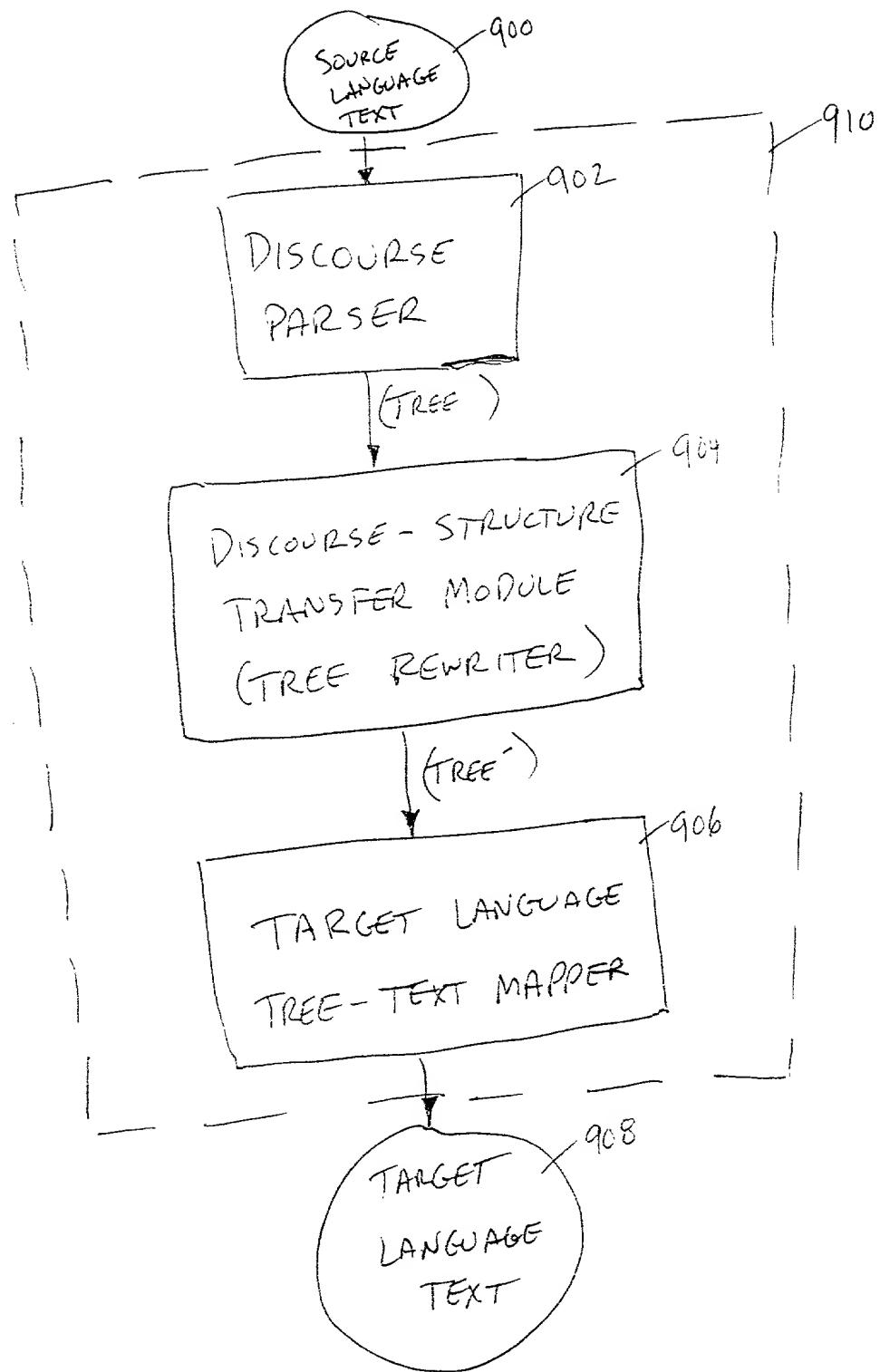


FIG. 12

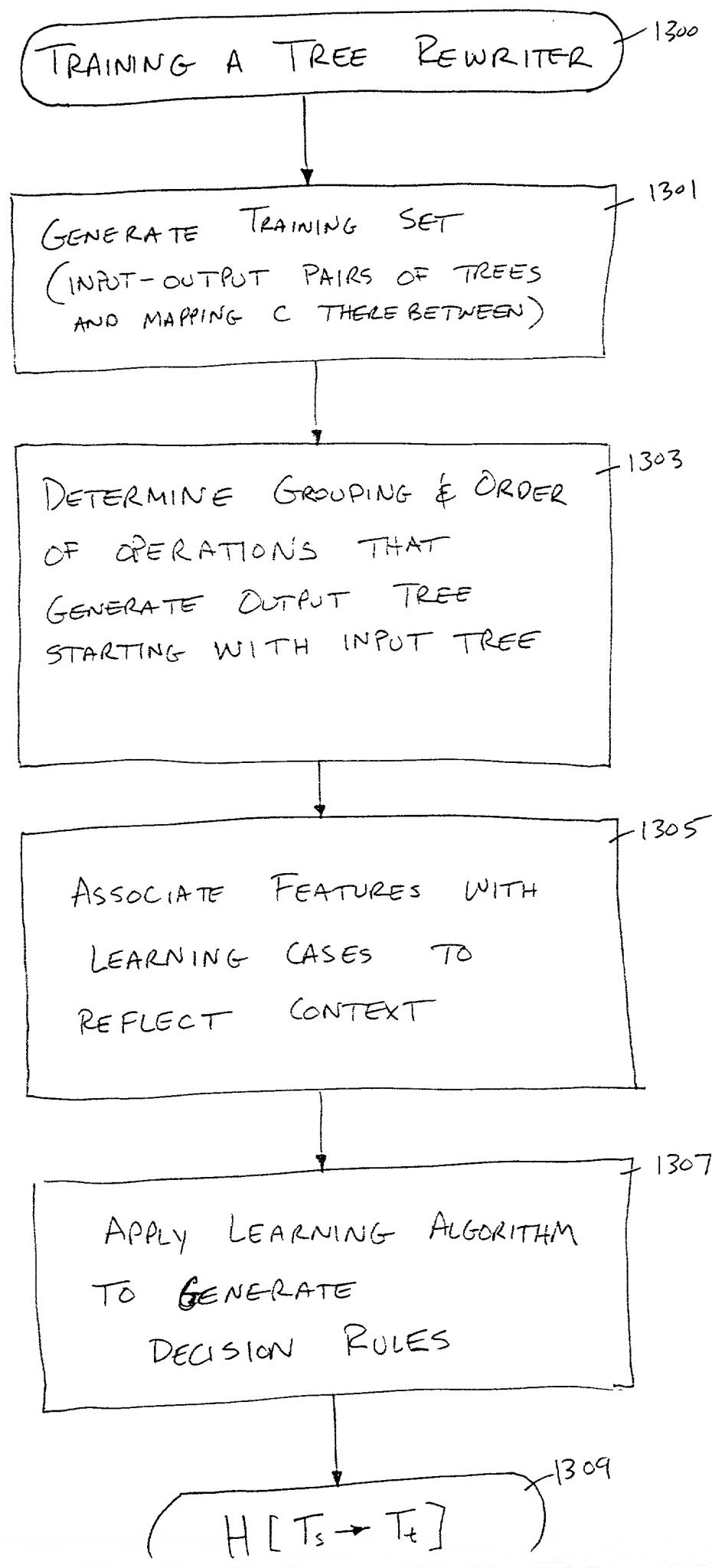
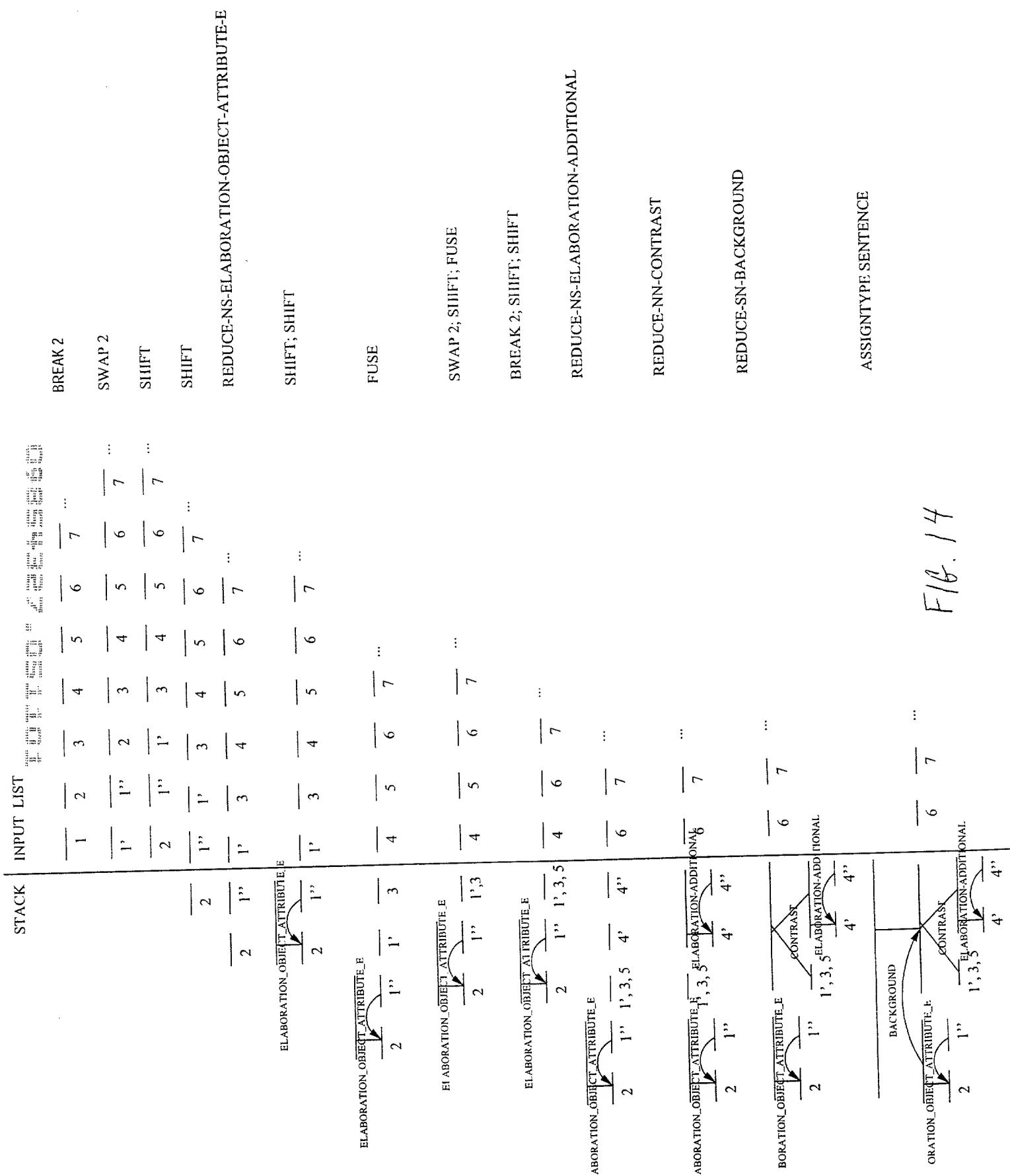


FIG. 13



Accuracy %

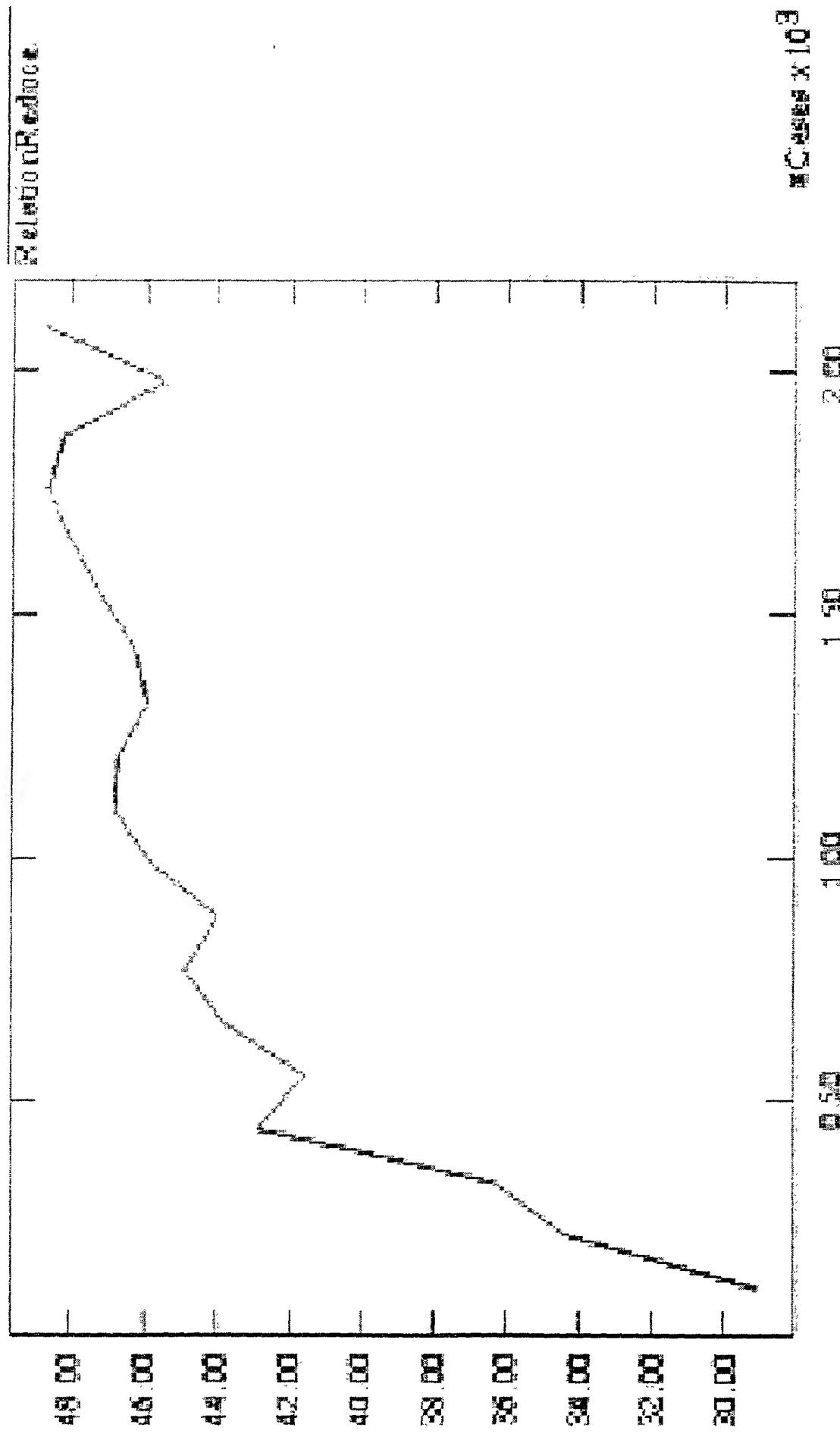


Fig. 15